

Dura-Flo™ XL 1000cc Pumps

3A4100F
EN

For use with bulk supply of medium to high viscosity sealant and adhesive materials.
For professional use only.

Not approved for use with group 1 fluids as defined by Directive 2014/68/EU (Pressure Equipment Directive).

Not approved for use in European explosive atmosphere location.

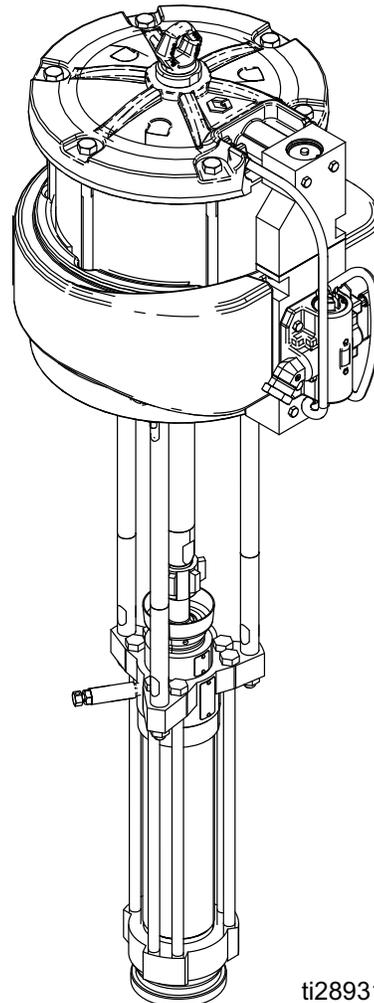
See Technical Specifications page on page 19 for maximum allowable ambient temperature information.

See Page 2 for model information and maximum working pressure.



Important Safety Instructions

Read all warnings and instructions in this and all related manuals. Save all instructions.



ti28931a



Contents

Models	2	Lower Parts	11
Warnings	3	25A447, 25A448, 25A449, 25A450	11
Component Identification / Pump Assembly	5	Lower Parts List	12
Motor Component Identification	6	Air Motor 25A455	13
Grounding the System	7	Air Motor Parts List	14
Installation	8	Dura-Flo 1000cc Pumps with Xtreme and XL Motors	15
Pressure Relief Procedure	9	Repair Kits	16
For the Supply System	9	Kits and Accessories	17
For the Pump	9	Dimensions and Mounting Hole Layouts	18
Maintenance	10	Technical Specifications	19
Packing Nut / Wet-Cup	10	California Proposition 65	19
Flushing the Pump	10	Graco Standard Warranty	20
Disconnecting the Displacement Pump	10	Graco Information	20

Models

Pump Part and Series	Pump Style	Motor	Pump Lower	Ratio	Maximum Fluid Working Pressure	Maximum Air Input Pressure
25A451, Series A	XL 1000cc, Severe Duty, Carbon Steel	*25A455 XL 24000	*25A447 Dura-Flo 1800 (1000cc)	47:1	4500 psi (31 MPa, 310 bar)	100 psi (0.7 MPa, 7 bar)
25A452, Series A	XL 1000cc, MaxLife, Carbon Steel	*25A455 XL 24000	*25A448 Dura-Flo 1800 (1000cc)	47:1	4500 psi (31 MPa, 310 bar)	100 psi (0.7 MPa, 7 bar)
25A453, Series A	XL 1000cc, Severe Duty, Stainless Steel	*25A455 XL 24000	*25A449 Dura-Flo 1800 (1000cc)	47:1	4500 psi (31 MPa, 310 bar)	100 psi (0.7 MPa, 7 bar)
25A454, Series A	XL 1000cc, MaxLife, Stainless Steel	*25A455 XL 24000	*25A450 Dura-Flo 1800 (1000cc)	47:1	4500 psi (31 MPa, 310 bar)	100 psi (0.7 MPa, 7 bar)

* Items are part of a kit, See **Kits and Accessories** on page 17.

Related Manuals

Manual	Description
309169	Uni-Drum™ Supply System for 1200 Liter (300 gallon) Containers
309028	Uni-Drum™ Supply System for 1200 Liter (300 gallon) Containers
3A2510	Uni-Drum™ Supply System for 1000 Liter (265 gallon) Containers
332499	Uni-Drum™ Supply System for 1000 Liter (265 gallon) Containers

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h1 style="margin: 0;">WARNING</h1>	
	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> Engage trigger lock when not dispensing. Do not point dispensing device at anyone or at any part of the body. Do not put your hand over the fluid outlet. Do not stop or deflect leaks with your hand, body, glove, or rag. Follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing equipment. Tighten all fluid connections before operating the equipment. Check hoses and couplings daily. Replace worn or damaged parts immediately.
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> Use equipment only in well ventilated area. Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking). Ground all equipment in the work area. See Grounding instructions. Never spray or flush solvent at high pressure. Keep work area free of debris, including solvent, rags and gasoline. Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. Use only grounded hoses. Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive. Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area.

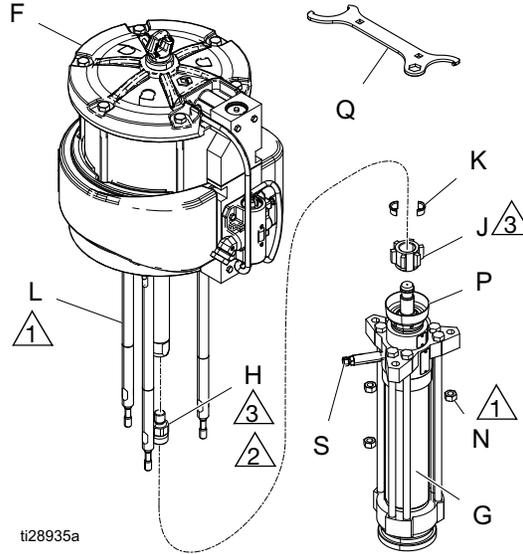
! WARNING

 	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, Relieve Pressure and disconnect all power sources.
 	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheet (SDS) from distributor or retailer. • Do not leave the work area while equipment is energized or under pressure. • Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards. • Make sure all equipment is rated and approved for the environment in which you are using it. • Use equipment only for its intended purpose. Call your distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not kink or over bend hoses or use hoses to pull equipment. • Keep children and animals away from work area. • Comply with all applicable safety regulations.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

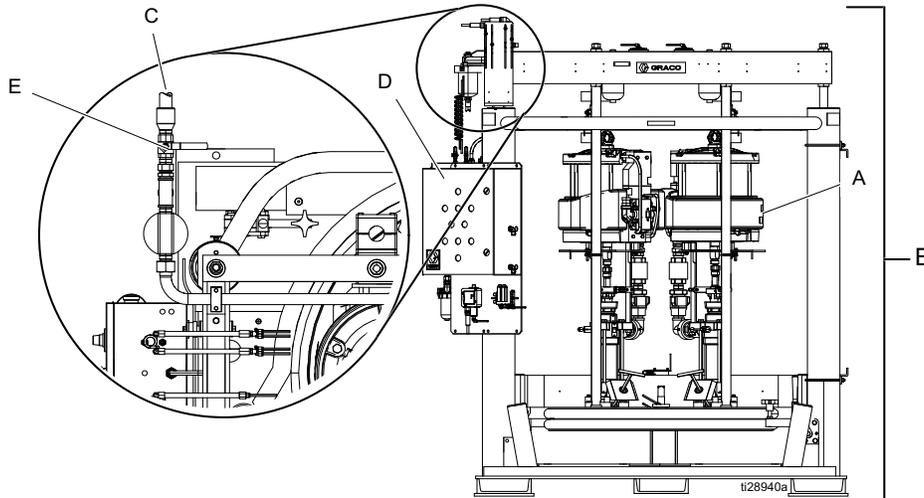
Component Identification / Pump Assembly

Pump Assembly Instructions:

1. Assemble (H) to (F).
Apply sealant and torque.
2. Assemble (L) to (F) and torque.
3. Assemble (G) to (L) and hand-tighten (N).
4. Assemble (K) and torque (J) to (H).
5. Torque (N) to (L).



- △1 Torque to 129-142 N•m (95-105 ft-lb).
- △2 Apply sealant to threads (102969).
- △3 Torque to 312-340 N•m (230-250 ft-lb).



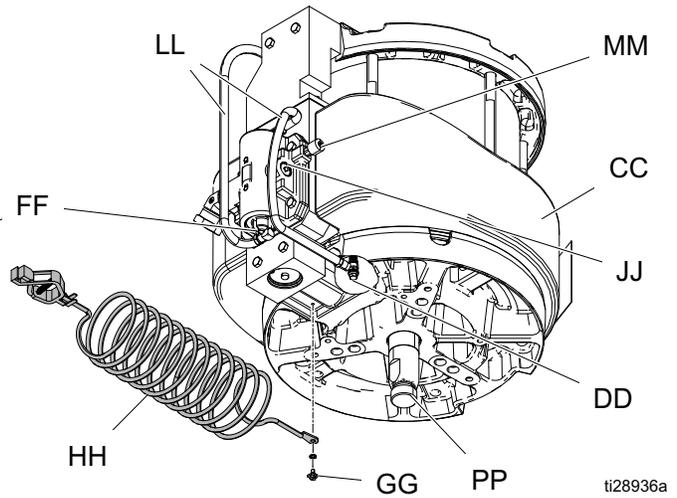
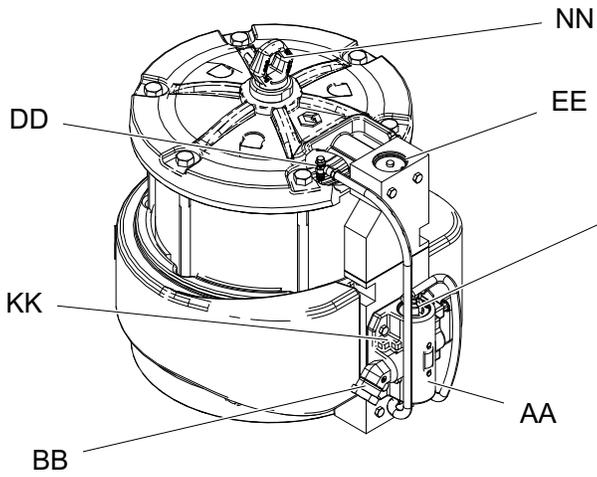
Typical Installation

Ref.	Description
A	Pump
B	Supply System
C	Main Air Inlet
D	Supply System Control Panel
E	Bleed-Type Shutoff Valve
F*	Motor, XL
G*	Displacement Pump
H*	Coupling Adapter

Ref.	Description
J*	Coupling Nut
K*	Coupling Collar
L*	Tie Rod with Extension
N*	Hex Nut
P*	Packing Nut / Wet Cup
Q*	Packing Nut Wrench
S*	Pump Bleed Valve

* Included with this system.

Motor Component Identification



Ref.	Description
AA	Directional Air Valve
BB	Air Inlet 1 in. npt(f)
CC	Muffler
DD	Pilot Valve
EE	Manifold
FF	Manual Shuttle Override Button
GG	Ground Screw

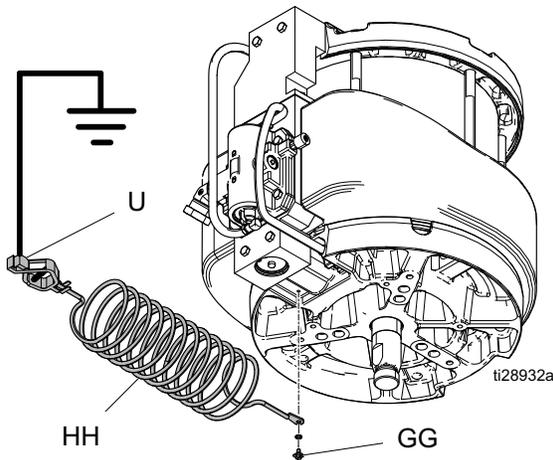
Ref.	Description
HH	Static Ground Cable
JJ	Plug for Optional Solenoid
KK	Optional Reed Switch Mount
LL	External Pilot Lines
MM	De-ice Bleed Air Valve
NN	Lift Ring - 500 lb (363 kg) Maximum
PP	Pump Drive Rod

Grounding the System

				
<p>The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.</p>				

Pump: Use a ground wire and clamp (supplied). Verify that the ground screw (GG) is attached and tightened securely to the air motor. Connect the clamp (U) of the static ground cable (HH) to a true earth ground. For a replacement ground wire and clamp, order part 244524.

NOTE: Have qualified personnel check the resistance between each pump and the true earth ground.



Air and fluid hoses: Use only electrically conductive hoses with a maximum of 500 ft (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megohms, replace the hose immediately.

Air compressor: Follow manufacturer recommendations.

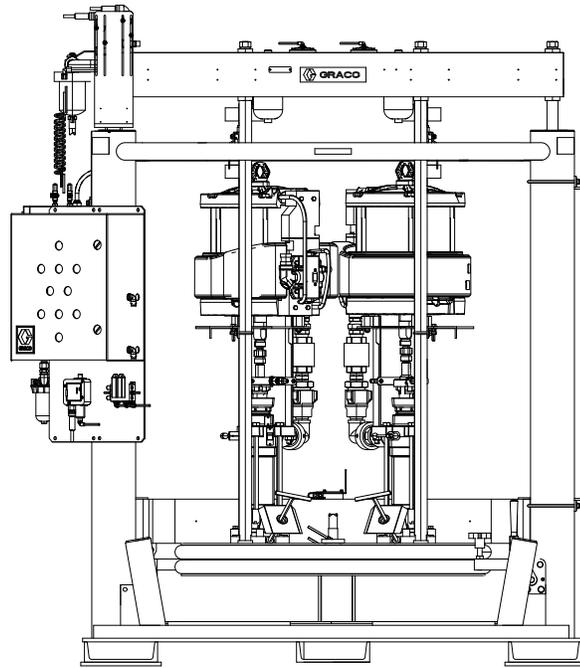
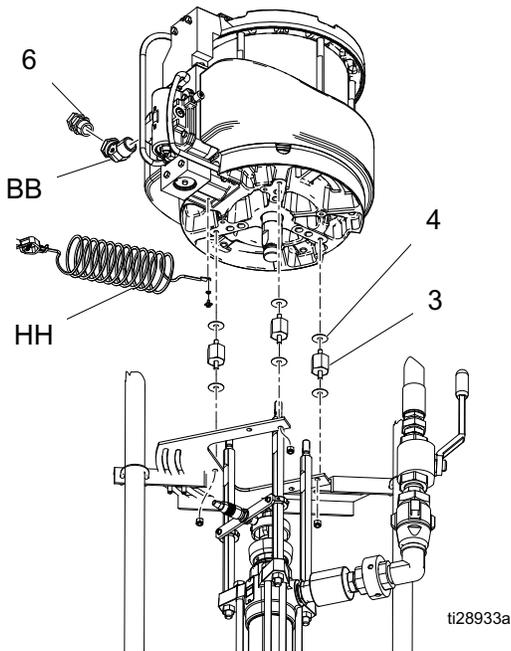
Spray gun or dispensing valve: Ground through connection to a properly grounded fluid hose and pump.

NOTE: See system manual for additional grounding information.

NOTE: Use a meter that is capable of measuring resistance at this level.

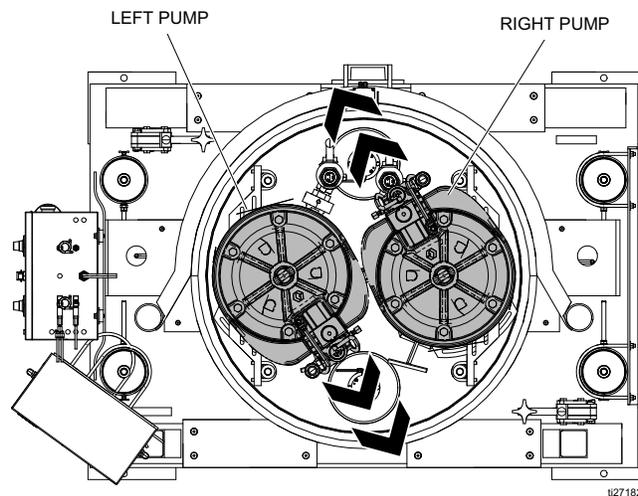
Installation

				
<p>Keep hands and fingers away from the follower plate, pump inlets, and the drum when raising and lowering the follower plate to reduce the risk of pinching or amputating hands or fingers.</p>				



1. Remove the air motor and pump from the system. See the system manual for instructions.
2. Assemble ground wire (HH) to the ground screw location on the air motor (F).
3. Remove the 45° 1 in. NPT fitting and replace it with elbow (BB) and swivel (6) as needed. Assemble with pipe sealant.
4. Install mounts (3) and gaskets (4). Torque to 15-18 ft-lb (20-24 N•m).
5. Install air motor (F) onto the system. See system manual for further instructions.

NOTE: For Uni-Drum™ systems, position the left and right pumps as shown below.



Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

For the Supply System

See the system manual.

For the Pump

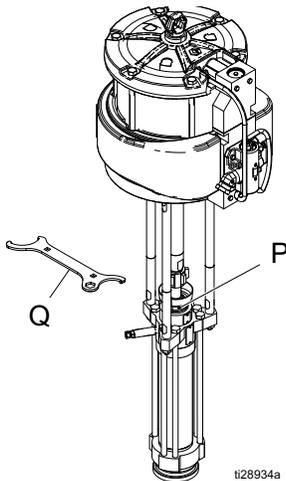
1. Disable any dispense equipment on the system. See the system manual.
2. Close the bleed-type shutoff valve (E)
3. Open any downstream forward valves, such as the ball seat applicators on ram assemblies that may be part of the system. Have a container ready to catch the drainage.
4. Open the pump bleed valve (S). **NOTE:** Have a container ready.
5. Leave the bleed valve open until you are ready to spray/dispense again.

Maintenance

Packing Nut / Wet-Cup



1. Fill the packing nut/wet cup (P) 1/3 full with Graco Throat Seal Liquid (TSL).
2. Use the supplied wrench (Q) to adjust the packing nut weekly so that it is just snug. Do NOT over-tighten.



Flushing the Pump



To reduce the risk of serious injury, do not flush pump with group 1 fluids as defined by Directive 2014/68/EU (Pressure Equipment Directive).

The pump is tested with lightweight oil, which is left in to protect the pump parts. If the fluid you are using may be contaminated by the oil, flush it out with a compatible flush material before using the pump.

- Flush at the lowest pressure possible. check connectors for leaks and tighten as necessary.
 - Flush with a fluid that is compatible with the fluid being dispensed and the equipment wetted parts.
1. Perform the **Pressure Relief Procedure** on page 9.
 2. Set pump to lowest possible fluid pressure, and then start the pump.
 3. Dispense fluid into a grounded metal pail.

Disconnecting the Displacement Pump



To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 9.

1. Flush the pump if you are using flushable material.
2. Stop the pump at the bottom of its stroke.
3. Perform the **Pressure Relief Procedure** on page 9.
4. Disconnect the air or the hydraulic hose. Plug all hydraulic hoses immediately to prevent the contamination of the hydraulic system. Hold the fluid outlet fitting with a wrench to keep it from being loosened while you disconnect the fluid hose.
5. Disconnect the displacement pump (G) from the motor (F) as follows. Make sure to note the relative position of the pump fluid outlet to the air or hydraulic inlet of the motor due to orientation restrictions on the system. If the motor does not require servicing, leave it attached to its mounting.

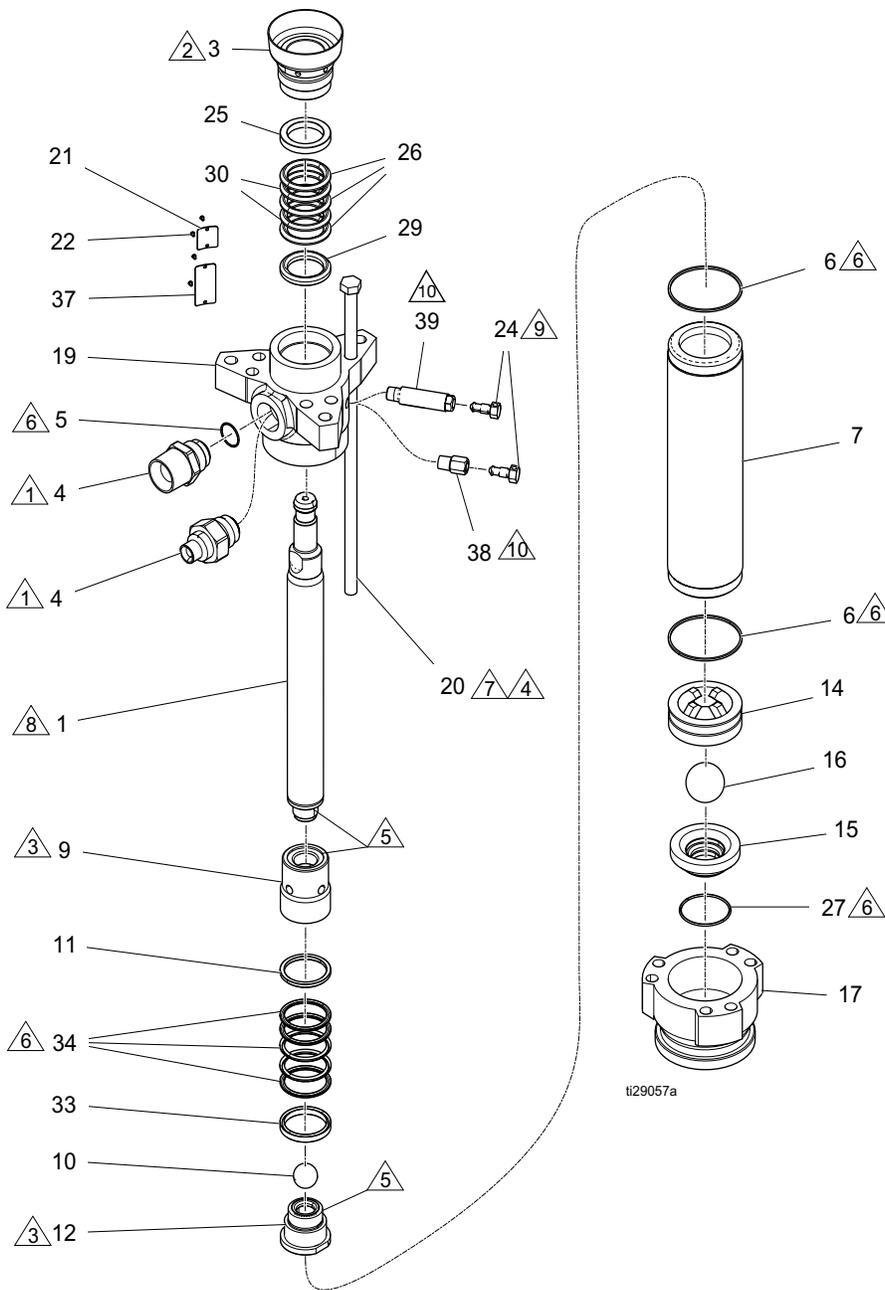


Be sure to use at least two people when lifting, moving, or disconnecting the pump. This pump is too heavy for one person. If you are disconnecting the displacement pump from a motor which is still mounted (for example, on a wall bracket), be sure to support the displacement pump while it is being disconnected. Failure to do so may result in the pump falling and causing injury or property damage. Do this by securely bracing the pump, or by having at least two people hold the pump while another person disconnects it.

6. Using adjustable wrenches to unscrew the coupling nut (J) from the coupling adapter (H). Remove the coupling collars (K). Take care not to lose or drop the collars.
7. Hold the tie rod (L) flats with a wrench to keep the rods from turning. Unscrew the hex nuts (N) from the tie rods extensions. Carefully remove the displacement pump (G) from the motor (F).

Lower Parts

25A447, 25A448, 25A449, 25A450



- Torque to 156-171 N•m (115-126 ft-lb).
- Torque to 135-169 N•m (100-125 ft-lb).
- For 241648, 249991, and 15F298, limit torque to 27-40 N•m (20-30 ft-lb).
- Torque to 459-481 N•m (338-354 ft-lb).
- Torque oppositely and evenly to 244-264 N•m (180-195 ft-lb).
- Apply anti-seize lubricant to threads and mating faces.
- Lubricate.
- Apply thread lubricant.
- Use arbor press to drive into cylinder (7).
- Unscrew plug from valve housing and clean.
- Torque to 30-38 N•m (22-28 ft-lb).

ti29057a

Lower Parts List

NOTE: See the parts drawing on the previous page. Part numbers vary by lower. To find the part number used in your lower, read down the chart to find the desired Ref. number, then read left to right to find the part number for your lower.

Ref.	Part	Qty.	*25A447	*25A448	*25A449	*25A450
			Carbon Steel, Severe Duty	Carbon Steel, MaxLife	Stainless Steel, Severe Duty	Stainless Steel, MaxLife
1	ROD, displacement	1	17L297	17L298	17L297	17L298
3	NUT, packing/ wet cup	1	24U017	24U017	24U019	24U019
4	FITTING, outlet	1	184279	184279	184387	184387
5	PACKING, o-ring	1	109213	109213	109213	109213
6	SEAL	2	184072	184072	184072	184072
7	CYLINDER	1	17L296	17L295	17L296	17L295
9	GUIDE, ball	1	184283	184283	184283	184283
10	BALL, metallic	1	102973	15C869	102973	15C869
11	GLAND, packing, male	1	184232	184232	184232	184232
12	HOUSING, valve	1	222795	222795	222795	222795
13	PACKING, vee	2	184312	184312	687057	687057
14	GUIDE, ball	1	184406	184406	184282	184282
15	HOUSING, valve	1	222794	222794	222838	222838
16	BALL, intake	1	102974	15C868	110294	15C868
17	HOUSING intake	1	184275	184275	184390	184390
19	HOUSING, outlet, pump	1	184290	184290	184389	184389
20	BOLT	6	17L291	128710	17L291	17L291
21	PLATE, designation	1	184446	184446	184446	184446
22	SCREW, drive	4	100508	100508	109202	109202
24	PLUG	1	190128	190128	190293	190293
25	GLAND, packing, female	1	184181	184181	184181	184181
26	PACKING, vee	3	109311	109311	109261	109261
27	PACKING, o-ring	1	102857	102857	102857	102857
29	GLAND, packing, male	1	184231	184231	184231	184231
30	PACKING, vee	2	184311	184311	687056	687056
33	GLAND, packing, female	1	184182	184182	184182	184182
34	PACKING, vee	3	109312	109312	109262	109262
37▲	PLATE, warning	1	184473	184473	184474	184474
39	BODY, bleeder	1	190126	190126	184392	184392

Lower Part	Body	Size	Rod Construction	Cylinder Construction	Ball Construction	Seat Construction	Piston Packings	Throat Packings
*25A447	CS	1000cc	SST with Severe-Duty	SST with Severe-Duty	SST	E-Nickel/Cast Iron	3 PTFE/2 leather	3 PTFE/2 leather
*25A448	CS	1000cc	SST with Max-Life	SST with Max-Life	Silicone Nitride	E-Nickel/Cast Iron	3 PTFE / 2 Leather	3 PTFE / 2 Leather
*25A449	SS	1000cc	SST with Severe-Duty	SST with Severe-Duty	SST	SST	3 UHMWPE / 2 Graphite PTFE	3 UHMWPE / 2 Graphite PTFE
*25A450	SS	1000cc	SST with Max-Life	SST with Max-Life	Silicone Nitride	SST	3 UHMWPE / 2 Graphite PTFE	3 UHMWPE / 2 Graphite PTFE

▲ Additional Warning labels are available at no cost.

* Items are part of a kit, See **Kits and Accessories** on page 17.

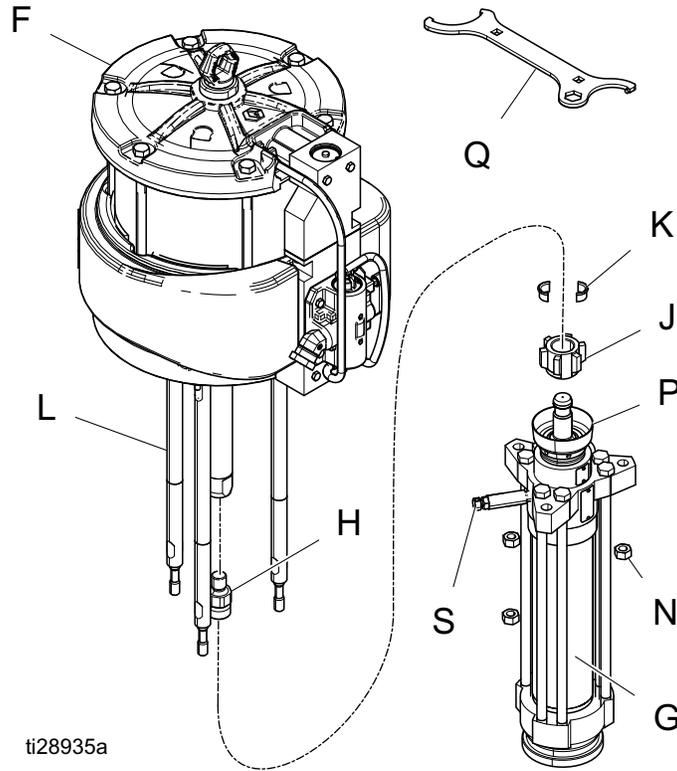
Air Motor Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1†	24X559	COVER, bottom	1	22†	-----	GASKET, end cap	2
2	24W584	COVER, top	1	23	110036	BOLT, M8 x 1.25 x 45 mm	4
3†	17L293	KIT, cylinder	1	24	17B389	SCREW, M8 x 1.25 x 45 mm	4
4†	25A890	KIT, piston, motor	1	25	127582	SCREW, 5/8 11 x 8.5 in.	6
5	17L300	MANIFOLD, exhaust, XL	1	26	-----	FITTING, swivel 45°, 1 npt x 1 npsm	1
7†	-----	BEARING, sleeve, 1.75 in. ID, 2 in. OD	1	27	24X565	GASKET, valve, 2 pack	1
8†	-----	PACKING, u-cup, 1.75 in. ID, 2.125 in. OD	1	28	555749	FITTING, adapter, 1/8 npt(m) x JIC (#4); 1/2 hex	2
9†	-----	SEAL, rod, wiper, 1.75 in. rod	1	30	17C974	CAP, manifold, air, XL	2
10†	-----	O-RING, piston	1	31	C20987	PACKING, o-ring	1
11†	-----	RING, retaining	1	38	244524	CABLE, ground, with clamp (includes 38a)	1
12	24X560	COVER, muffler, complete	1	38a▲	290079	TAG, warning, grounding (not shown)	1
13	24X562	VALVE, air, XL	1	39	111307	WASHER, lock, external	1
14	109486	PACKING, o-ring	2	40	116343	SCREW, ground	1
15	24A366	VALVE, pilot (includes 15a-15c)	2	42	17C776	GASKET, muffler	1
15a	155685	PACKING, o-ring, middle	1	51▲	15F674	LABEL, safety, motor	1
15b†	-----	PACKING, u-cup, shaft	1	52	104010	PACKING, o-ring	2
15c	154741	PACKING, o-ring, bottom	1	53	557832	RING, retainer, 187 basic int	2
15d	197650	O-RING, buna, top	1	55	128090	HOSE, coupled	2
16	16D001	ADAPTER, lift ring	1	75	123889	FITTING, elbow	1
17	15F931	RING, lift, sst 1 9/16 thread	1	76	C19032	SWIVEL, swivel union	1
18	NXT106	BUMPER, piston (with magnet)	1	77	20B039	KIT, gasket, manifold, air, 10K	1
19†	25A915	KIT, bumper, top and bottom (with screws)	1				
21	108014	PACKING, o-ring	1				

▲ Replacement Warning labels, signs, tags, and cards are available at no cost.

† See Kits and Accessories, page 17.

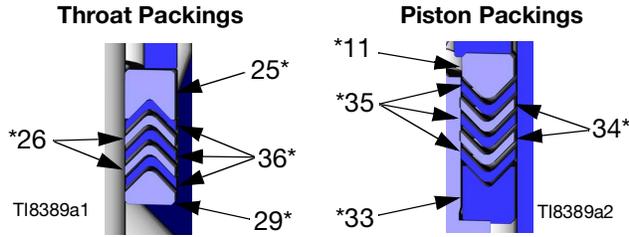
Dura-Flo 1000cc Pumps with Xtreme and XL Motors



Ref.	Description	25A451	25A452	25A453	25A454	Qty.
		Severe Duty	Max Life	Sever Duty	MaxLife	
		Carbon Steel	Stainless Steel	Carbon Steel	Stainless Steel	
F	MOTOR, XL 24000	25A455	25A455	25A455	25A455	1
H	ADAPTER, rod	184582	184582	184582	184582	1
J	COLLAR, coupling	184130	184130	184130	184130	2
K	NUT, coupling	184096	184096	184096	184096	1
N	NUT, mach, hex	106166	106166	106166	106166	3
Q	TOOL, wrench, combo	184278	184278	184278	184278	1
-	ADHESIVE, anaerobic	102969	102969	102969	102969	1
L	KIT, rod, tie, 1000cc	17L294	17L294	17L294	17L294	3
-	MOUNT	189977	189977	189977	189977	3
-	GASKET	190072	190072	190072	190072	6
C	Dura-Flo 1800 (1000cc)	25A447	25A448	25A449	25A450	1

Repair Kits

UHMWPE and PTFE Packings



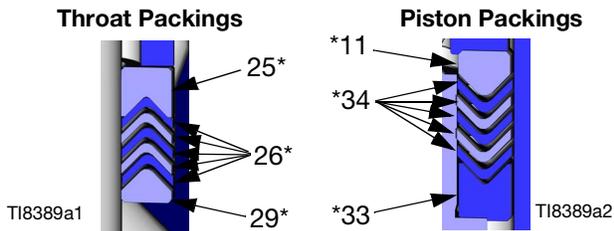
17L796 Repair Kit, for Dura-Flo 1000cc
(standard for 25A449 and 25A450)

Ref.	Part	Description	Qty.
11	184232	GLAND, male, piston, stainless steel	1
25	184181	GLAND, female, throat, stainless steel	1
26	687056	V-PACKING, throat, graphite/PTFE	2
29	184231	GLAND, male, throat, stainless steel	1
33	184182	GLAND, female, piston, stainless steel	1
34	687057	V-PACKING, piston, graphite/PTFE	2
35	109262	V-PACKING, piston, UHMWPE	3
36	109261	V-PACKING, throat, UHMWPE	3

222845 Repair Kit, for Dura-Flo 1000cc

Ref.	Part	Description	Qty.
11	184232	GLAND, male, piston, stainless steel	1
25	184181	GLAND, female, throat, stainless steel	1
26	109311	V-PACKING, throat, PTFE	2
29	184231	GLAND, male, throat, stainless steel	1
33	184182	GLAND, female, piston, stainless steel	1
34	109312	V-PACKING, piston, PTFE	2
35	109262	V-PACKING, piston, UHMWPE	3
36	109261	V-PACKING, throat, UHMWPE	3

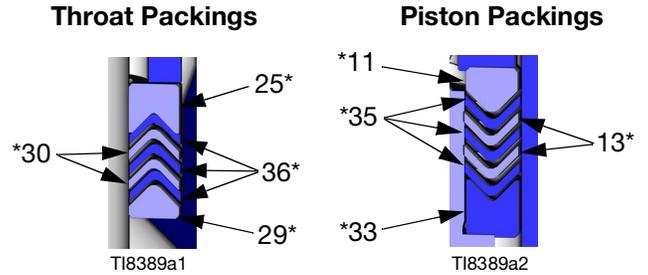
PTFE Packings



222846 Repair Kit, for Dura-Flo 1000cc

Ref.	Part	Description	Qty.
11*	184232	GLAND, male, piston; sst	1
25*	184181	GLAND, female, throat; sst	1
26*	109311	V-PACKING, throat; PTFE	5
29*	184231	GLAND, male, throat, sst	1
33*	184182	GLAND, female, piston; sst	1
34*	109312	V-PACKING, piston, PTFE	5

PTFE and Leather Packings



222849 Repair Kit, for Dura-Flo 1000cc
(standard for 25A447 and 25A448)

Ref.	Part	Description	Qty.
11*	184232	GLAND, male, piston; sst	1
13*	184312	V-PACKING, piston; leather	2
25*	184181	GLAND, female, throat; stainless steel	1
29*	184231	GLAND, male, throat, sst	1
30*	184311	V-PACKING, throat; leather	2
33*	184182	GLAND, female, piston; sst	1
35*	109262	V-PACKING, piston; UHMWPE	3
36*	109261	V-PACKING, throat; UHMWPE	3

222847 Leather/PTFE Backup Conversion Kit for Dura-Flo 1000cc

11*	184232	GLAND, male, piston; stainless steel	1
13*	184312	V-PACKING, piston; leather	4
25*	184181	GLAND, female, throat; stainless steel	1
26*	109311	V-PACKING, throat; PTFE	1
29*	184231	GLAND, male, throat; stainless steel	1
30*	184311	V-PACKING, throat; leather	4
33*	184182	GLAND, female, piston; stainless steel	1
34*	109312	V-PACKING, piston; PTFE	1

17L796 Packings Repair Kit for Dura-Flo 1000cc

11*	184232	GLAND, male, piston; sst	1
13*	687056	V-PACKING, graphite/TFE Dura	2
25*	184181	GLAND, female, throat; stainless steel	1
29*	184231	GLAND, male, throat; stainless steel	1
30*	687057	V-PACKING, graphite/TFE Dura	1
33*	184182	GLAND, female, piston; stainless steel	1
35*	109262	V-PACKING, piston; UHMWPE	3
36*	109261	V-PACKING, throat; UHMWPE	3

Kits and Accessories

† XL Air Motor Repair Kits

Part	Description	Air Motor Parts Ref.
NXT103	Lift Ring	(17)
25A890	Piston/Rod Assembly Repair Kit	
-- 15G478	Bumper	(18)
-----	Piston	(4)
-----	Shaft, piston, Rod	
24X558	Air Motor Soft Parts Repair Kit	
-----	O-ring, cylinder (2)	(14)
-- 155885	Packing, O-ring, middle	(15a)
-----	Packing, U-cup, shaft	(15b)
-- 154741	Packing, O-ring, bottom	(15c)
-- 197650	O-ring, Buna, top	(15d)
-----	O-ring, piston	(10)
-----	Packing, U-cup	(8)
-----	Seal, rod	(9)
-----	Ring, retaining	(11)
-----	Gasket, end cap (2)	(22)
-----	Gasket, muffler	(42)
24X559	Bottom End Cap Repair Kit	
-----	Bumper	(19)
-----	Bearing, sleeve	(7)
-----	Packing, U-cup	(8)
-----	Seal, rod	(9)
-----	Ring, retaining	(11)
-----	Cover, bottom	(1)
24X560	Muffler Repair Kit	
-- 15F674	Label, warning	(51)
-----	Foam, Dampers	(46)
-----	Cylinder, Motor	(3)
24A915	Bumper Kit	
-----	Bumper, bottom	(19)
-----	Bumper, top	(20)
-----	Screw, top (3)	(29)

Air Valve Repair Kits

Part	Description	Air Valve Parts Ref.
24X562	Repair, Complete Assembly	
-----	Valve, Air, XL	(13)
24X585	Kit, gasket, valve (2 pack)	(27)
24X563	Repair, Valve O-rings	

Accessories

Part	Description
256893	Linear sensor, potted, XM
287839	Linear sensor, HLS motors
24X550	Kit, reed switch and solenoid, DataTrak, XL bracket
24X552	Kit, reed switch, DataTrak, XL bracket

Kit 17L014 1000cc Pump Assembly Parts

Part	Description	Qty.
184582	ADAPTER, rod	1
184130	COLLAR, coupling	2
184096	NUT, coupling	1
106166	NUT, mach, hex	3
184278	TOOL, wrench, combo	1
102969	ADHESIVE, anaerobic	1
17L294	KIT, rod, tie, 1000cc	3
189977	MOUNT	3
190072	GAKSET	6

XL Motor Kit 25A455

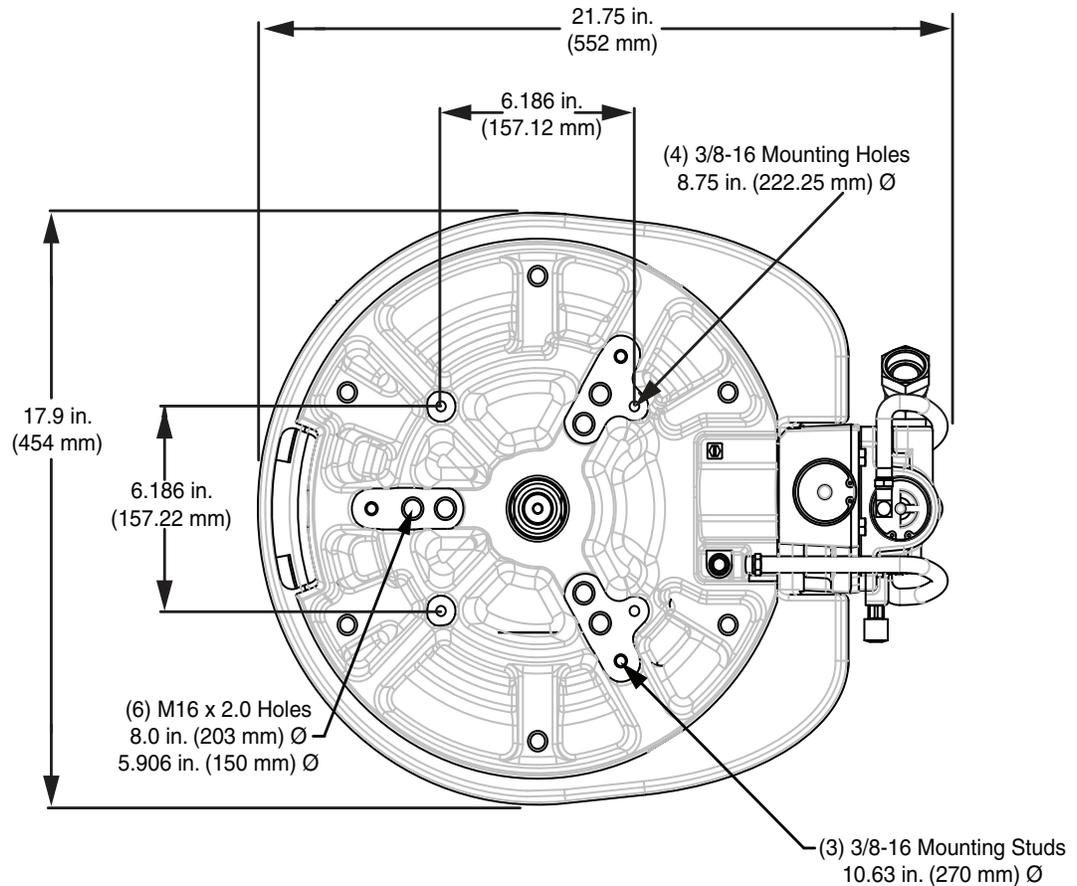
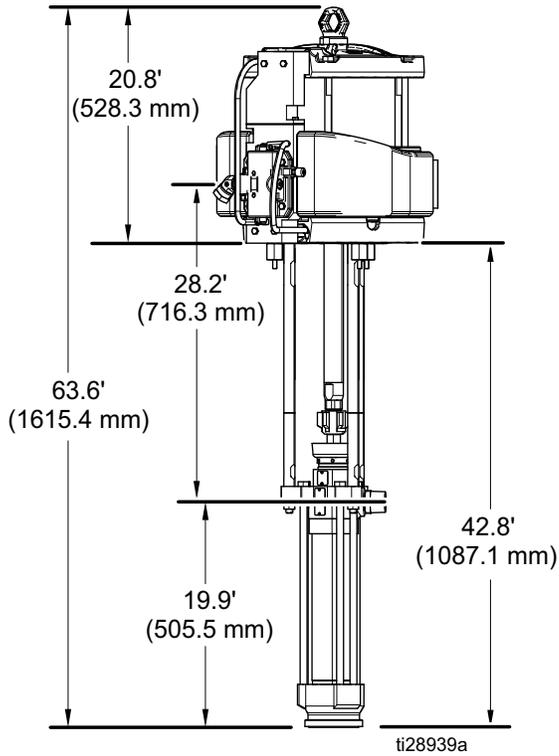
Part	Description	Qty.
-----	MOTOR, XL, 24000	1
244524	WIRE, ground, with clamp	1
189977	MOUNT	3
190072	GASKET	6
123889	FITTING, elbow	1
C19032	SWIVEL, union	1
110110	SEALANT, pipe	1

Air Motor and Lower Assembly Kits

Parent Assembly	Item #1	Item #2	Description
†26B358	*25A455	3A4100	MOTOR, XL, 2400
†26B359	*25A447	3A4100	PUMP, RECIP, 18CM-CST, 1000CC
†26B360	*25A448	3A4100	PUMP, RECIP, 18CM-CST, 1000CC, MAX
†26B361	*25A449	3A4100	PUMP, RECIP, 18CM-SST, 1000CC
†26B362	*25A450	3A4100	PUMP, RECIP, 18CM-SST, 1000CC, MAX

NOTE: Do not order Item #1 *, must be ordered as the Parent Assembly †

Dimensions and Mounting Hole Layouts



Technical Specifications

Dura-Flo XL 1000cc Pumps Models 25A451, 25A452, 25A453, 25A454		
	U.S.	Metric
Ratio	47:1	
Maximum Fluid Working Pressure	4500 psi	31 MPa, 310 bar
Maximum Air Inlet Pressure	100 psi	0.7 MPa, 7 bar
Displacement Per Cycle	0.264 gallons	1000cc
Maximum Speed	30 cpm	
Maximum Pump Operating Temperature	100° F	37.8° C
Stroke Length	11.25 in.	286 mm
Air Motor Piston Effective Area	132.7 in. ²	856 cm ²
Displacement Pump Effective Area	2.79 in. ²	18 cm ²
Total Sounds Power*	98 dBA	
Average Sound Pressure *+	88.6 dBA	
Air Inlet Size	1 in. npt(f)	
Fluid Inlet Size	2 in. npt(f)	
Fluid Outlet Size	<i>Carbon and Stainless steel lowers: 1-1/2 in. npt(m)</i>	
Weight	<i>Motor: 120 lb Lower: 98 lb</i>	<i>Motor: 54.4 kg Lower: 44.5 kg</i>
Wetted parts	<i>Carbon steel lowers: Carbon steel; chrome, zinc and electric nickel plating; 304, 404, and 17-4 PH grades of stainless steel; silicone nitride; tungsten carbide; ductile iron; acetal; PTFE; carbon-filled PTFE; UHMWPE; leather</i>	
	<i>Stainless steel lowers: 304, 329, and 17-4 PH grades of stainless steel; silicone nitride; chrome plating; tungsten carbide; acetal, PTFE; carbon-filled PTFE; UHMWPE; leather</i>	

Not for use with group 1 fluids as defined by Directive 2014/68/EU (Pressure Equipment Directive).
Do not use fluids with a flash point exceeding the maximum operating temperature of the pump.

* Tested at 18 cpm with an inlet air pressure of 0.45 MPa (4.5 bar, 65 psi) per ISO 9614-2.

+ Measured at a distance of 1 m (3.3 ft) from equipment at a height of 1.5m (4.9 ft).

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211, **Fax:** 612-378-3505

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 3A4100

Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

Copyright 2016, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com
Revision F, July 2022